

DRIVE FOR AN ADJUSTER DEVICE IN A MOTOR VEHICLE

BACKGROUND

- 5 The invention relates to a drive for an adjuster device in a motor vehicle.

A drive of this kind comprises a drive motor, a drive element mounted rotatable about a drive axis, e.g. in the form of a rotor of the drive motor; as well as a device for the self-locking of the drive element which in the de-energized state of the drive motor
10 locks the drive element with a locking element.

From DE 199 42 362 C1 a self-locking electric drive is known having an electric motor and a transmission on the output side with a transmission housing, a gear output shaft rotatable relative to the transmission housing, and a drive for the self-
15 locking of the gear output shaft. The self-locking electric drive has a locking element which at the same time as the electric motor is operated is displaceable electrically from a first position to a second position, as well as an element which is fixed relative to the transmission housing wherein the locking element in the first position produces a positive coupling between the gear output shaft and the fixed element and wherein
20 this coupling is disengaged in the second position. The fixed element is thereby formed by a gear axis on which the locking element is displaceably mounted in the axial direction. With this arrangement, a self-locking electric drive can be produced in which a sufficiently strong self-locking action is ensured. Thus, with the electric motor switched off, torque applied on the output side is prevented from being
25 transferred to the drive side, without the efficiency of the drive hereby being adversely affected too much. However, this arrangement has the drawback in that the ability of the locking element to move in the axial direction to produce and clear the self-locking action requires a certain extension in the axial direction. This is undesirable, particularly in the case of flat motors of electric driver for motor vehicles,
30 where due to space limitations, obtaining the smallest possible extension of a motor in the axial direction is of great importance.

From WO 94 23220 A a drive is known consisting of a drive motor, a drive element mounted rotatable about a drive axis and a device for the self-locking of the drive
35 element. In the de-energized state of the drive motor the drive element is locked with a locking element. The locking element can be brought out of engagement with the

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